

**REMARKS/ARGUMENTS**

Favorable reconsideration and allowance of the present application are respectfully requested in view of the following remarks.

Claims 1-17 were pending prior to the Office Action. Claims 8-14 are canceled without prejudice or disclaimer, and claims 18-21 are added through this Reply. Therefore, claims 1-7 and 15-21 are pending. Claims 1, 15, 18 and 21 are independent. Further, the specification is editorially amended.

**A. CLAIM OBJECTION**

Claims 1, 8 and 15 are objected for informalities. The objection is moot with respect to claim 8. Claims 1 and 15 are amended to address the issues raised. Applicants respectfully request that the objection to claims be withdrawn.

**B. DRAWING CHANGES**

A Drawing Change Request to amend Fig. 1 is separately submitted herewith to enhance consistency with the specification. No new matter is added. Specifically, Fig. 1 is amended as follows:

- Element number 101 refers to BTS (see e.g., p. 7, ll. 29-30 of the specification as originally submitted); and

- Element number 31 refers to the bidirectional unlicensed-radio interface (see e.g., p. 8, ll. 11-14 of the specification as originally submitted).

Applicants respectfully request that the changes to the drawings be accepted.

**C. § 103 REJECTION – FURTENBACK ET AL., MONIN ET AL.**

Claims 1-17 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Furtenback et al. (EP 1 351 530 A1) in view of Monin et al. (U.S. Publication No. 2002/0197984 A1). The rejection with respect to claims 8-14 is moot. Applicants respectfully traverse with respect to claims 1-7 and 15-17.

In a non-limiting aspect, presently pending claims are directed to accomplish a handover of a mobile terminal (or station) from a public mobile network (e.g., GSM, UMTS, etc.) to an access network using unlicensed radio interfaces. The nature of an unlicensed access network is that local base stations may vary in number and be arranged at widely spaced locations. One problem in implementing the handover from the public mobile network to the unlicensed network is how to identify the target mini-cell for the handover to the elements of the public mobile network, without having to reconfigure these elements regularly. This problem is solved according to the present claims by assigning all mini-cells a common identifier associated with the access network

controller and by providing a mechanism whereby the access network controller assumes the task of identifying which mini-cell is the target for the handover. This is achieved by the access network controller assigning a handover reference to the handover request received from the core network and enabling communication with a mobile station through the target mini-cell when the handover reference is received from this mobile station.

To accomplish the handover of a mobile terminal (station) in the direction from the public mobile network to the unlicensed access network, the access network controller receives the handover request from the core network. The access network controller responds to the handover request by assigning a handover reference to the handover request and sets up a communication path between the mobile station and the core network when a message containing the handover reference is received from the mobile station. *See e.g., independent claims 1 and 15.*

In the Office Action, the Examiner alleges that Furtenback discloses the feature of the access network controller as recited. In point of fact, Furtenback states exactly the opposite. Furtenback states:

Since home base stations and their associated cells will generally be located in the coverage area of base transceiver stations BTS 103 of a public mobile network, handover of an established call from a base transceiver station BTS 103 to a home base station will not be necessary. Thus all calls established via GSM or other public mobile network radio will be concluded on public mobile network radio. If the mobile terminal has roamed into a home base station cell during this session and remains in this cell,

subsequent calls will be performed using the Bluetooth radio or other unlicensed radio interface. *Emphasis added; see [0036].*

Furtenback directly teaches against a handover in the direction from the public mobile network to the unlicensed access network. Paragraph [0036] clearly states that all calls established on the public mobile network radio will be concluded on the public mobile network.

In Furtenback, handover is described only in the context of a handover in the direction from the unlicensed access network (HBS, HBSC) to the public mobile network (BTS, BSC). *See [0037], Fig. 8.* During such handover, a handover request is received by, and acknowledged by, the BSC 102 of the public mobile network — not by the HBSC 105 (allegedly equivalent to the access network controller as recited). Indeed, Furtenback does not disclose any equivalent mechanism for the receipt of a handover request by the HBSC.

In short, Furtenback does not teach or suggest:

wherein said access network controller is adapted to receive a handover request containing said common identifier from said core network, to respond to said handover request by assigning a handover reference to said request, and to setup a communication path between said mobile station and said core network when a message containing said handover reference is received from said mobile station.

as recited in claim 1. Furtenback also does not teach or suggest:

said access network controller responding to a handover request message containing said common identifier received from said core network portion by generating a handover reference and transmitting said

handover reference in a handover acknowledgment message to said core network portion; and said access network controller receiving said handover reference from said mobile station via said local base station and setting up a communication path between said mobile station and said core network in response to said received handover reference.

as recited in claim 15. As demonstrated, Furtenback teaches against these features.

Monin also does not teach or suggest these features of claims 1 and 15. In fact, Monin teaches against a handover taking place at all. Monin teaches a separation of the local and physical identities of WLAN access points by enabling an assignment of a logical identity by a central network control unit. This permits flexible allocation of communication channels in different parts of the network so that the channels move to or with a mobile station. As a consequence of this allocation possibility, handover is not achieved with the active participation of the mobile station. *See [0024]*.

Since neither Furtenback nor Monin teaches or suggest the above-recited features, the combination of the same references also cannot teach or suggest the same features. For at least this reason, independent claims 1 and 15 are distinguishable over Furtenback and Monin. By virtue of their dependencies from independent claims 1 and 15 as well as on their own, claims 2-7 and 16-17 are also distinguishable over Furtenback and Monin.

Applicants respectfully request that the rejection of claims 1-17 based on Furtenback and Monin be withdrawn.

**D. NEW CLAIMS**

Claims 18-21 are added through this Reply. No new matter is introduced. All new claims are believed to be distinguishable over the cited references, individually or in any combination. For example, independent claims 18 and 21 recite features similar to claims 1 and 7. Dependent claims 19-20 recite further distinguishing features. Applicants respectfully request that the claims 18-21 be allowed.

**E. CONCLUSION**

All objections and rejections raised in the Office Action having been addressed, it is respectfully submitted that the present application is in condition for allowance. Should there be any outstanding matters that need to be resolved, the Examiner is respectfully requested to contact Hyung Sohn (Reg. No. 44,346), to conduct an interview in an effort to expedite prosecution in connection with the present application.


AMENDMENT  
U.S. Application No. 10/588,658

Atty. Docket No.: 4144-7  
Art Unit No.: 2617

The Commissioner is authorized to charge the undersigned's deposit account #14-1140 in whatever amount is necessary for entry of these papers and the continued pendency of the captioned application.

Respectfully submitted,

**NIXON & VANDERHYE P.C.**

By:  \_\_\_\_\_  
Hyung N. Sohn  
Reg. No. 44,346

HNS/edg  
901 North Glebe Road, 11th Floor  
Arlington, VA 22203-1808  
Telephone: (703) 816-4000  
Facsimile: (703) 816-4100